## **DEFENSE INFORMATION SYSTEMS AGENCY**

Interoperability Directorate, 5600 Columbia Pike, Falls Church, VA 22041-2717 SYMBOLOGY STANDARDS MANAGEMENT COMMITTEE DIRECTIVE

<b>SSMC NO: 2-03</b>		Date: July 24, 2003	
CP No: MIL03-02	Title: Dead Reckoning (DR) Trailer Graphic Modifier		
Originator, Name and Address:			
SPAWAR			
SSMC Action:		Decision:	
Approved  Approved with Changes  Withdrawn  Deferred  Declared Substantive  By:  Disapproved  Testing Required  Prior to Decision  Subsequent to Decision  Allied Coordination Required		Approved with changes. See CP MIL03-02 for changes.	
Votes Cast/Proposed Change			
Approve Disapprove Abstain	N/A		
	USA USMC USAF USAF NIMA DIA DISA		
		Chairperson	
		Ghury a Hashner (Signature)	

SYMBOLOGY CONFIGURATION MANAGEMENT CHANGE PROPOSAL FORM					
CHANGE PROPOSAL NUMBER		MIL03-02			
ORIGINATOR	SPONSOR	DATE RECEIVED	DATE OF ACTION		
SPAWAR	NAVY	January 31, 2003	July 24, 2003		
CHANGE PROPOSAL TITLE					
Dead Reckoning (DR) Trailer Graphic Modifier					
SUGGESTED CHANGE					

- 1. STATEMENT OF THE PROBLEM: MIL-STD 2525B does not contain a graphic modifier to represent a Dead Reckoning (DR) Trailer for a tactical object (e.g., track). Dead reckoning uses the course and speed of the track from the last report and calculates where the track should be at present. The track is then plotted where it should be at the present time, assuming that course and speed are unchanged. A DR trailer is a line from the track's dead reckoned position to the last reported position for the track. The Common Operating Environment (COE) community and operational users require the ability to display a DR Trailer as a symbol modifier.
- 2. PROBLEM ANALYSIS: The COE provides the software for rendering the Common Operational Picture (COP) by the C4I systems of record being fielded by the military services. The Software Requirements Specifications for COP and related COE services identify joint visualization requirements for the display of track information and include support for various graphic modifiers, one of which is a DR Trailer. These modifiers are available in the COP provided by the v3.X COE software which is used in fielded systems such as GCCS and GCCS-M. These modifiers are also supported in the v4.X COE software in order to provide feature completeness with regard to v3.X functionality. The v4.X COE will be used by the C4I systems of record to be fielded over the next several years. The default configuration for COP using the v4.X COE is to provide symbology that complies with MIL-STD 2525. Graphic modifiers such as a DR Trailer need to be added to the MIL-STD so the COE and the systems using it are able to both comply with the MIL-STD and satisfy the joint visualization requirements that have been identified by the military services.
- **3. PROPOSED SOLUTION:** Add the following types of DR Trailer to the MIL-STD.
  - (a) Line DR Trailer A two-point line.

Geometry: Two points; point 1 represents the last report, and point 2 represents the DR lat/long position. The track symbol would appear at point 2.

Graphics: Dotted line.

(b) Farthest On Circle DR Trailer – Radius is the length of the DR, distance between point1 and point2.

Geometry: Center lat/long, radius in Nautical miles, radius represents possible DR distance. Graphics: Circle, not filled, dotted.

Note: This CP requests that the two types of DR Trailer be defined as a symbol modifier. However, DR Trailers might also be defined as tactical graphics that are "attached" to a symbol and are dynamically updated as the symbol position changes.

- **4. ALTERNATE SOLUTIONS:** Not provided.
- **5. AFFECTED DOCUMENTATION:** Not provided.
- **6. IMPACT ON OTHER STANDARDS:** Not provided.
- 7. **INCORPORATION DATE:** Not provided.
- **8.** OTHER CONSIDERATIONS: Not provided.

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9. **REFERENCES**: Not provided.

## 10. <u>ATTACHMENTS</u>:

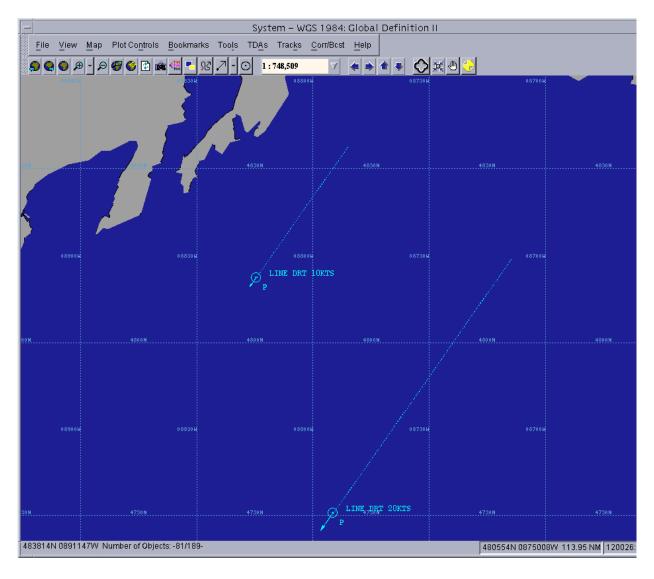
Attachment 1 - Example of Line Dead Reckoning Trailer
Attachment 2 - Example of Farthest On Circle Dead Reckoning Trailer

## **DECISION NOTICE**

Approved as modified at SSMC 2-03 conditionally on NTDS definition for rendering the Farthest On Dead Reckoning Circle.

Section 3a, above, the dotted line will be defined as a series of uniformly sized and shaped dots.

Attachment 1 - Example of Line Dead Reckoning Trailer



Attachment 2 - Example of Farthest On Circle Dead Reckoning Trailer

